Plant Pathology Circular No. 175 Fla. Dept. Agric. & Consumer Services
February 1977 Division of Plant Industry

CROWN ROT OF PEPEROMIA

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Crown rot of Peperomia obtusifolia A. Dietr. is incited by the fungus Phytophthora nicotinae var. parasitica (Dast.) Waterh. (2, 3). The disease was first described in 1951 by Ark and DeWolfe (1) in California. This disease can reach serious proportions in Florida, especially in warm weather, and can severely reduce production of variegated and nonvariegated varieties.

SYMPTOMS. All aboveground parts of stock plants, cuttings, or production plants can be affected. On plants whose leaves do not touch the soil-mix, the first symptom is a pronounced blackening of the stem at the soil line. The fungus progresses up the stem into both petioles and leaves and causes the plant tissue to blacken and wilt (fig. 1). In cuttings, 3-4 days may elapse from the appearance of the basal stem discoloration until total discoloration and collapse of the cutting. On plants whose leaves touch the soil-mix, infection may start where the leaf touches the soil and may progress into the stem.

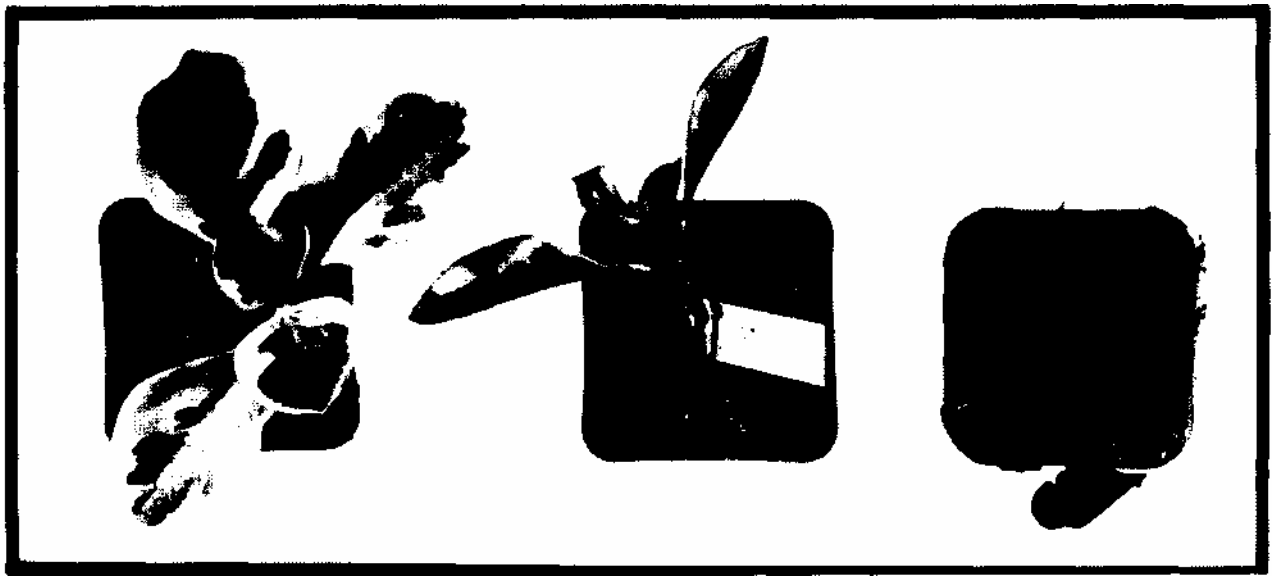

Fig. 1. Left to right: Healthy variegated peperomia cutting, diseased cutting showing basal stem discoloration, and diseased cutting showing discoloration associated with severe wilt and collapse.

CONTROL. Control procedures emphasize preventing the pathogen from encountering a peperomia plant. The cardinal points requisite to pathogen-host separation are: use of healthy pathogen-free cuttings; use of pathogen-free soil-mix, i.e., steam-pasteurized (or sterilized) soil-mix or methyl bromide-fumigated soil-mix; use of raised benches; and the employment of good nursery sanitary practices. While nearly everyone can obtain crown rot-free cuttings and

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practice good sanitation procedures, not everyone will find it feasible to use proper soil treatment. Fungicides such as Truban and Dexon can reduce the amount of disease relative to non-treated controls (2). These formulations can be used as preventative drenches and are alternatives and/or additions to the aforementioned soil treatments. Peperomia plants are sensitive to Truban, and it is suggested that rates be lower than what is recommended (2). Two experimental systemic fungicides, Nurelle (2) and GA-1-82 (unpublished information), offer excellent control relative to Truban and Dexon. These systemic formulations are not yet commercially available.

Literature Cited

1. Ark, P. A., and T. A. DeWolfe. 1951. Phytophthora rot of peperomia. Plant Dis. Reptr. 35:46-47.
2. Knauss, J. F. 1974. Nurelle, a new systemic fungicide for control of Phytophthora crown rot of Peperomia obtusifolia. Proc. Fla. State Hort. Soc. 87:522-528.
3. Siradhana, B. Singh, C. W. Ellett, and A. F. Schmitthenner. 1968. Crown rot of peperomia. Plant Dis. Reptr. 52:244.